NATIONAL GUIDELINE CLEARINGHOUSE™ (NGC™) GUIDELINE SYNTHESIS

Assessment and Treatment of Overweight and Obesity

Guidelines:

1. National Heart Lung Blood Institute and the National Institute of Diabetes Digestive and Kidney Disease of the National Institutes of Health (NIH). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. Bethesda (MD): National Institutes of Health, National Heart, Lung and Blood Institute (NHLBI); 1998 Jun. 228 p.
2. American College of Endocrinology (ACE), American Association of Clinical Endocrinologists (AACE). AACE/ACE position statement on the prevention, diagnosis and treatment of obesity. Jacksonville (FL): American Association of Clinical Endocrinologists; 1998. 35 p. (AACE clinical guidelines; no. 1998).

Introduction:

Guidelines from NIH and AACE/ACE discuss indications for weight loss intervention and offer treatment recommendations for overweight and obesity, addressing dietary restriction, physical activity, behavior and lifestyle modification, pharmacotherapy and surgical options. NIH and AACE/ACE also identify potential benefits and harms associated with weight loss interventions. The following table compares these aspects of the NIH and AACE/ACE guidelines.

	NIH (1998)	AACE/ACE (1998)
Objective and Scope	To identify, evaluate, and summarize published information about the assessment and treatment of overweight and obesity; to provide evidence-based guidelines for physicians, other health care practitioners, and health care organizations for the evaluation and treatment of overweight and obesity in adults; to identify areas for future research	To review current knowledge of the prever diagnosis, consequences and treatment of obesity; to facilitate the success of obesity prevention and treatment programs; to doc that obesity is a disease for which a multidisciplinary team (preferably physicia provides the best treatment; to encourage provision and payment of services for obes patients; and to reduce the prevalence of obesity.
Target Population	All overweight and obese adults (age 18 years or more) with a BMI of 25 or more are considered at risk for weight-related morbidity.	Overweight and obese adults and children targeted. Individuals are at greater risk for weight-related morbidity as the BMI increa over 25. Generally, men with more than 25% bo

		and women with more than 35% body f considered obese. Children whose weight exceeds 120% expected for their height are considered obese.
Interventions and Practices Considered	• Dietary Therapy Low Calorie Diets (LCD: 800-1500 kcal/day); Very Low Calorie Diets (VLCD: 250-800 kcal/day). Lower fat diet (20-30% of calories from fat) • Physical Activity • Behavior Therapy Self-monitoring Stress management Stimulus control Problem solving Contingency management Cognitive restructuring Social support • Combined therapy (diet, lifestyle changes and physical activity) • Pharmacotherapy Dexfenfluramine** Fenfluramine**	• Prevention of obesity • Counseling • Dietary restriction Low calorie diet (LCD: 80 more calories daily); • Very low calorie diet (VLCD; 250 t calories daily) Physical activity • Lifestyle Changes Self-monitoring Stimulus control Contingency management Cognitive/behavio strategies Support groups • Combined therapy (diet, lifestyle changes and physical activity) • Pharmacotherapy[#] Dexfenfluramine** Fenfluramine** Phentermine Mazindol Diethylpropion Benzphetamine Phendimetrazine Phenylpropanolamine

	Phentermine Sibutramine Orlistat ***Market withdrawal, 1997* • Surgery Gastric restriction (vertical gastric banding) Gastric bypass (Roux-en Y) *NIH considered all therapeutic options for their effects on weight loss, as well as for their effects on fitness and abdominal fat.*	Amphetamine Methamphetamine Phenmetrazine Sibutramine Orlistat Acarbose Olestra *#AACE reviewed all the pharmacotherapeutic listed, but does not recommend many of thes* ***Market withdrawal, 1997* • Surgery Vertical banded gastroplasty Laparoscopic gas banding Gastric bypass (R en-Y) Intestinal bypass Jaw wiring Liposuction Gastric bubble Vagotomy
ASSESSMENT OF OVERWEIGHT AND OBESITY		
Key Measures	• Body Mass Index (BMI) • Waist circumference	• USDA standards: Healthy weights men and women stratified by heig • Body Mass Index (BMI) • Waist -to-Hip Ratio • Waist circumference
Indications for Weight Loss	All obese patients, defined as those having a body mass of 30 kg/m^2 or	Patients with BMI of 25 or greater may be offered therapy. Patients with BMI 25-30 a

Therapy	greater, should be treated. Overweight individuals having a body mass index (BMI) of 25 to 29.9 kg/m^2, or a waist circumference of 88 cm/35 inches or greater (women) or 102 cm/40 inches or greater (men), and 2 or more risk factors should be treated.	low risk in the absence of complicating fac and at moderate risk if complicating factors present; patients with BMI 30-35 are at mo risk if no complicating factors, and at high with such factors; patients with BMI 35-40 high risk with no complicating factors, and very high risk if complicating factors prese
Risk Factors that Influence Treatment Decisions	Assessment of a patient's absolute risk status requires examination for the presence of • coronary heart disease, • atherosclerotic diseases, • type 2 diabetes or • sleep apnea The presence of any of these disease conditions denotes the presence of high absolute risk. Other contributory risk factors include: • hypertension (systolic blood pressure ≥140 mm Hg or diastolic blood pressure ≥90 mm Hg) • cigarette smoking, • high-risk LDL-cholesterol (≥160 mg/dL or 130 to 159 mg/dL plus two or more other risk factors), low HDL-cholesterol (< 35 mg/dL), • impaired fasting glucose (fasting plasma glucose of 110 to 125 mg/dL), • family history of premature CHD, and • age (men: 45 years or older; women: 55 years or older or postmenopausal). Patients can be classified as being at high absolute risk if they have three of the aforementioned risk factors.	Obesity-related health risk reflects the distribution of body fat and the presence o comorbid disease. • The location of fat on the body is a primary determinant of health risk. Patients with a waist circumferenc inches or more (men) or 38 inches (women) are considered to have c (android) obesity. Patients with an obesity tend to have insulin resista hyperinsulinemia, dyslipidemia, ar hypertension, and increased risk f coronary artery disease, stroke, ar diabetes mellitus. • A waist circumference of 40 inches cm) in men and 35 inches (89 cm) women may represent the critical threshold above which metabolic complications are more likely to de • Generally, a waist/hip ratio of 0.8 f women and 0.9 for men designate risk. A waist/hip ratio of less than (women and less than 1.0 in men indicates lower risk. The following comorbidities increase ob related health risk: • Hyperinsulinemia • Diabetes mellitus type 2 • Hypertension • Dyslipidemia • Sleep apnea.
Treatment of Overweight and Obesity: Basic Therapy		

Weight Loss Goals	The initial goal of weight loss therapy should be to reduce body weight by approximately 10%. If this is successful, further weight loss may be attempted. Weight loss should be about 1-2 lb/week for a period of 6 months, with the subsequent strategy based on the amount of weight loss.	For most obese patients, a weight-loss goa 10%-15% is reasonable. Gradual weight reduction should be emphasized. The mea weight-loss goal after the initial month of treatment should approximate 1 lb/week. A person with a strong family and personal h of obesity should not strive for weight in th normal range. Attempts to achieve goals d by external criteria such as desirable body weight usually fail.
Basic Therapy	The decision to lose weight must be made jointly between the physician and the patient. Patient involvement and investment is crucial to success. The patient may choose not to lose weight but rather to prevent further weight gain as a goal. There is strong evidence that combined interventions of a low-calorie diet (LCD), increased physical activity and behavior therapy provide the most successful therapy for weight loss and weight maintenance.	All obese patients, whether or not they are candidates for pharmacotherapy or surger should undergo basic treatment, including counseling, caloric restriction, behavior the and physical activity. Before initiating treatment, the physicia should prepare the patient by clearly communicating the medical reason (or reasons) for weight loss tailored to the patient's specific problems.
Dietary Restriction • **Low calorie diets (LCDs)** • **Very low calorie diets (VLCDs)**	LCDs are recommended for weight loss in overweight and obese persons. Reducing dietary fat along with reducing dietary carbohydrates can facilitate caloric reduction. Reducing dietary fat without reducing caloric intake is not sufficient for weight loss. A diet that is individually planned to help create a deficit of 500-1,000 kcal/day should be an integral part of any program aimed at achieving a weight loss of 1-2 lb/week. A patient may choose a diet of 1,000 to 1,200 kcal/day for women and 1,200 to 1,500 kcal/day for men. Very low-calorie diets (VLCDs) produce greater initial weight losses than LCDs, but over periods of >1 year weight loss is not different than with LCDs. VLCDs are not recommended for weight loss therapy because the deficits are too great, and nutritional inadequacies will occur unless VLCDs are supplemented	A moderate caloric deficit or LCD is a first- approach for obese patients who are atten to lose weight for the first time. This regime also indicated for patients with BMI from 2 who have a good diet history. LCDs typica provide approximately 1,200 kcal/day for w or 1,500 kcal/day for men. A deficit of 500- kcal/day should result in weight loss of 1-2 lb/week. More severe caloric restriction with very calorie diets (VLCDs) is appropriate on when the patient faces a major health r (e.g.. BMI 35 or above, or BMI 30 or ab along with serious comorbid conditions the physician has determined that such can be used safely. The duration of use VLCD should not exceed 12 to 16 weel Patients who receive VLCDs require cl medical supervision.

	with vitamins and minerals.	
Physical Activity • **General** • **Initiation** • **Regimen**	Physical activity is recommended as part of a comprehensive weight loss therapy and weight control program because it: (1) modestly contributes to weight loss in overweight and obese adults, (2) may decrease abdominal fat, (3) increases cardiorespiratory fitness, and (4) may help with maintenance of weight loss. For most obese patients, physical activity should be initiated slowly, and the intensity should be increased gradually. The practitioner must decide whether exercise testing for cardiopulmonary disease is needed before embarking on a new physical activity regimen. The decision should be based on a patient's age, symptoms, and concomitant risk factors. Initially, moderate levels of physical activity for 30 to 45 minutes, 3 to 5 days a week, should be encouraged. All adults should set a long-term goal to accumulate at least 30 minutes or more of moderate-intensity	Although regular, moderate physical activi alone results in a limited weight loss of 4 t pounds over the long term, it is an essenti high-priority element of any weight-manag program. When performed in combination restriction of calories, regular, moderate pl activity achieves the following results: incr energy expenditure; maintains or minimize loss of lean body mass; reduces cardiovas risk by producing beneficial changes in the profile; has positive psychologic effects, including stress reduction and an improve sense of well-being and optimism; reduces insulin resistance; and may provide other benefits (some normalization of blood lipid glucose, and insulin), even when the patie remains overweight. Encourage incorporation of physical ac into a person's lifestyle. At the onset, c low-level workout, and recommend tha patient develop a consistent pattern of physical activity. The intensity, duration frequency of activity should be gradual increased. Patients with medical conditions, such cardiopulmonary disease, may require specialist referral for a tailored program

	physical activity on most, and preferably all, days of the week. Health professionals should encourage patients to plan and schedule physical activity one week in advance, budget the time necessary to do it, and document their physical activity by keeping a diary and recording the duration and intensity of exercise.	physical activity. The goal of any weight-management pr should be at least 30 minutes of moder intensity physical activity 5 to 7 times p week.
Behavior/Lifestyle Modification	Behavioral strategies to reinforce changes in diet and physical activity can produce weight loss in obese adults in the range of 10 percent of baseline weight over 4 months to 1 year. Unless a patient acquires a new set of eating and physical activity habits, long-term weight reduction is unlikely to succeed. Various strategies can be used by the practitioner to modify patient behavior. Change can be achieved either on an individual basis or in a group setting. Behavior therapy, in combination with an energy deficit, provides additional benefits in assisting patients to lose weight short term (1 year). Its effectiveness for long-term weight maintenance has not been shown in the absence of continued behavioral intervention.	Counseling for lifestyle changes should be provided. This enables patients to evaluate modify eating practices, habits of physical activity, and emotional responses to weigh Sessions should be conducted weekly, or least monthly, and should include a structu program with long-term follow-up.
Treatment of Overweight and Obesity: Pharmacotherapy		
General Recommendations: • **Patient Selection** • **Treatment Duration**	Weight loss drugs approved by the FDA may be used as part of a comprehensive weight loss program, including dietary therapy and physical activity for patients with a BMI of $\geq$30 with no concomitant obesity-related risk factors or diseases, and for patients with a BMI of $\geq$27 with concomitant obesity-related risk factors or diseases. The risk factors and diseases considered important enough to warrant pharmacotherapy at a BMI of 27 to 29.9 are hypertension, dyslipidemia, CHD, type 2 diabetes, and sleep	Pharmacotherapy, in conjunction with a ba weight-management program, is suitable f patients with a BMI $\geq$ 30 or for patients wit BMI of 27 to 29 and at least one major comorbidity. AACE and ACE do not condone antiob agent therapy when used simply for co purposes or when weight loss can be achieved and maintained without pharmacotherapy. When pharmacotherapy is associated v overall weight loss of $\geq$ 10% during the

	apnea. Weight loss medications should be used only by patients who are at increased medical risk because of their weight and should not be used for cosmetic weight loss. Weight loss drugs should never be used without concomitant lifestyle modifications. If after at least 6 months on a weight loss regimen of a low-calorie diet, increased physical activity and behavior therapy, the patient has not lost the recommended 1 lb/week, careful consideration may be given to pharmacotherapy. Continual assessment of drug therapy for efficacy and safety is necessary. Net weight loss attributable to drugs generally has been reported to be in the range of 2 to 10 kg, although some patients lose significantly more weight. Most of the weight loss occurs in the first 6 months of therapy. If the drug is efficacious in helping the patient to lose and/or maintain weight loss and there are no serious adverse effects, it can be continued. If not, it should be discontinued. There are no indications for specifying how long a weight loss drug should be continued. An initial trial period of several weeks with a given drug may help determine efficacy in a given patient. If a patient does not lose 2 kg in the first 4 weeks after initiating therapy, the likelihood of long-term response is very low. This finding may be used as a guide to	3 to 6 months of treatment, continued u may be appropriate to prevent regain, provided the physician and patient hav considered the risks and benefits of lon use. A realistic anticipation is a weight l 5 to 10% and the subsequent maintena that loss with its desirable benefits. We loss in excess of 10 to 15% of initial bo weight should not be expected. Any administration beyond a few weeks (usually considered as 3 months)-excep sibutramine, which may be given for up year-is an "off-label" use, although long use of an appropriate antiobesity agent be necessary for successful, long-term maintenance of weight loss. When long use is indicated, the patient should understand the benefits and possible ri such treatment. Use of an informed cor form is advised. On average, antiobesity agents produc weight loss of 4 pounds in 4 weeks in responders. When pharmacotherapy is initiated, a 3- to 6- week run-in period c often predict patient responsiveness, inasmuch as weight loss during this pe a major indicator of success. If patients not lose weight during the run-in period probability of success is low and the physician may discontinue pharmacoth to minimize unnecessary exposure and

	treatment, either continuing the medication in the responders or stopping it in the nonresponders.	
Appropriate Agents and Follow-up	In general, weight loss drugs approved by the FDA for long-term use can be useful adjuncts to dietary therapy and physical activity. Since obesity is a chronic disorder, the short-term use of drugs is not helpful. There is strong evidence that pharmacological therapy using dexfenfluramine, sibutramine, orlistat, or phentermine/fenfluramine results in modest weight loss in obese adults when used for 6 months to 1 year. Adverse side effects from the use of weight loss drugs have been observed in patients. As a result of the observed association of valvular heart disease in patients taking fenfluramine and dexfenfluramine alone or in combination, these drugs have been withdrawn from the market. At the present time, only sibutramine is approved for long-term use. FDA approval of orlistat is pending a resolution of labeling issues and results of Phase III trials. Appropriate monitoring for side effects must be continued while drugs are part of the regimen. Patients will need to return for follow-up in 2 to 4 weeks, then monthly for 3 months, and then every 3 months for the first year after starting the medication. After the first year, the physician will advise the patient on appropriate return visits.	Generally, AACE and ACE recommend prescribing only Food and Drug Administra (FDA)-approved agents. AACE does not advocate the use of any antiobesity agent, prescription or otherwise, that has not undergone thorough clinical testing. Available agents approved by the FDA use in treatment of obesity include age approved for use up to 1 year (sibutram agents approved for short-term use (diethylpropion, mazindol, and phenterr and second-line anti-obesity agents (benzphetamine, and phendimetrazine) Over-the-counter agents (phenylpropanolamine) are also consid The physician should continue to monit patient for adverse effects for the durat therapy. Patients are advised to return follow-up in 2 to 4 weeks, then monthly months, and then every 3 months for th year after starting the medication.
Treatment of Overweight and Obesity: Surgery		
General	Weight loss surgery is one option for	Surgical treatment of obesity may be cons

Recommendations: • **Patient Selection**	weight reduction in carefully selected patients with clinically severe obesity, i.e.., BMIs ≥40, or ≥35 with comorbid conditions. Weight loss surgery should be reserved for patients in whom efforts at medical therapy have failed and who are suffering from the complications of extreme obesity. An integrated program must be in place to provide guidance on diet, physical activity, and behavioral and social support both prior to and after the surgery. Lifelong medical surveillance after surgery is necessary.	only in carefully selected patients who mee following criteria: • a very high medical risk exists (BM or BMI of 35 to 39 with life-threate disabling comorbid conditions such diabetes mellitus, dyslipidemia, hypertension, or serious cardiopulmonary disorders); • obesity has been present for at lea years; • no history of alcoholism or a major psychiatric disorder is noted; and • the patient is between 18 and 65 y of age. For such patients, a gastric surgical procedure can induce rapid and substa weight reduction within 1 year postoperatively. The accepted weight-lo goal should not be greater than 150% o desirable body weight. The decision to perform or undergo surgical treatment, however, must be considered carefully because serious complications can occ
Appropriate Surgical Procedures	Gastrointestinal surgery (gastric restriction [vertical gastric banding] or gastric bypass [Roux-en Y]) is a weight loss option for motivated subjects with acceptable operative risks.	Two proven surgical options are available treatment of morbid obesity: (1) restrictive operations such as vertical banded gastrop (gastric stapling) or laparoscopic gastric ba and (2) gastric bypass operations such as en-Y gastric bypass or extensive gastric by (biliopancreatic diversion). Other surgical options include intestina bypass (effective but associated with m complications), jaw wiring (effective wh used), and liposuction (cosmetic proced Gastric bubble and vagotomy have not proved effective.
Maintenance of Weight Loss		
General Recommendations	After successful weight loss, the likelihood of weight loss maintenance is enhanced by a program consisting of dietary therapy, physical activity, and behavior therapy which should be continued indefinitely. Drug therapy can also be used. However, drug safety and efficacy beyond 1 year of total treatment have not been	Maintaining weight loss seems to be more difficult than losing weight, particularly for patients who were treated with caloric rest It requires a lifelong commitment to a char lifestyle, behavioral responses, and dietary practices. Accordingly, weight-maintenanc programs must emphasize continued beha therapy. A weight-maintenance program sh probably last a lifetime. The following guid will help maximize the duration of weight lo

	established. Weight loss and weight maintenance therapies that provide a greater frequency of contacts between the patient and the practitioner and are provided over the long term should be utilized whenever possible. This can lead to more successful weight loss and weight maintenance. It is suggested that the health professionals avail themselves of the various disciplines that offer expertise in dietary counseling, physical activity and behavior change. The relationship between the physician and these disciplines can be a direct, formal one or a more indirect referral. It is important to emphasize that a positive attitude of support and encouragement from all professionals is crucial to continuing success.	The weight-maintenance program should h the following characteristics: (1) Offer well-supervised, closed-group classes; (2) Use a multidisciplinary team approa that includes a physician, nurse, dietitia other members; (3) Set positive, achievable patient goa use counseling; (4) Use motivational aids; (5) Maintain weight records; (6) Encourage self-monitoring of eating habits, calories, and physical activity; (7) Promote physical activity as a fundamental lifestyle; (8) Teach nutritional principles; (9) Help the patient manage lapses; (10) Help patients incorporate other po experiences into their lives.
Potential Benefits		
	Weight loss may not only help control diseases worsened by obesity, it may also help decrease the likelihood of developing these diseases. Weight loss reduces blood pressure in both overweight hypertensive and nonhypertensive individuals; reduces serum triglycerides and increases high-density lipoprotein (HDL)-cholesterol; and generally produces some reduction in total serum cholesterol and low-density lipoprotein (LDL)-cholesterol in overweight and obese patients with dyslipidemia. Weight loss reduces blood glucose levels in overweight and obese persons with and without diabetes.	Even when a modest weight loss of 5 to 1(can be maintained, many patients with comorbidities will experience substantial h benefits. Such patients are likely to have decreased blood pressure measurements, improved blood glucose levels, improved lipoprotein profiles (reduced triglycerides, decreased total cholesterol, and increased C), ameliorated sleep apnea symptoms, decreased pain from osteoarthritis, and increased self-esteem.

	Physical activity has a benefit in reducing cardiovascular and diabetes risks beyond that produced by weight reduction alone.	
Potential Harms		
Physical Activity	Starting a physical activity regimen may require supervision for some people. The need to avoid injury during physical activity is high.	No harms associated with physical activity discussed.
Dietary Therapy	No harms associated with low-calorie diets (LCDs) are discussed. VLCDs are not recommended because, in addition to inadequate long-term effectiveness, the nutritional deficits are too great and inadequacies will occur unless VLCDs are supplemented with vitamins and minerals. Patients using VLCDs are at increased risk for developing gallstones.	Patients on weight-loss programs, especia programs that promote rapid weight loss s VLCDs, may also experience some advers effects-such as low serum sodium or potas levels, cholelithiasis, and liver dysfunction. Except for the rare occurrence of arrhythm sudden death, these adverse effects are relatively minor and do not outweigh the b of sensible weight loss Potential complications of LCDs include following: ketosis (if the diet contains < of carbohydrate daily), excessive loss o body mass, arrhythmias, dehydration, a tendency for recidivism. Cholelithiasis is the most frequent complication of VLCD therapy. It occurs to 25% of patients on VLCDs and is mo common when weight loss consistently exceeds 3 to 5 pounds per week. Othe serious complications can include exce loss of lean body mass and sudden dea medically vulnerable persons who have comorbidities, especially if daily caloric is <600 kcal.
Pharmacotherapy	The potential for side effects from the use of weight loss drugs is of great concern. • *Fenfluramine and dexfenfluramine*: As a result of the observed association of valvular heart disease in patients taking fenfluramine and dexfenfluramine alone or in combination, these drugs have been withdrawn	Anti-obesity agents may be associated wit adverse effects, including even the potenti a fatal outcome. • *Fenfluramine and dexfenfluramine* of combined therapy with fenfluran and dexfenfluramine was discontin because of findings of unusual, se and unexpected abnormalities of h valves in patients treated with thes drugs.

	from the market. Primary pulmonary hypertension and neurotoxicity was also associated with this drug combination. • *Sibutramine*: Sibutramine may be associated with increase in heart rate and blood pressure. • *Orlistat*: With orlistat, fat-soluble vitamins may require replacement because of partial malabsorption. Soft stools and anal leakage may occur.	• *Sibutramine*: Common side effects include hypertension, tachycardia, mouth, anorexia, insomnia and constipation. • *Diethylpropion*: Insomnia may occ particularly if the drug is taken in tl afternoon. Arrhythmia, increased b pressure, tachycardia, palpitations vomiting, diarrhea, and other adve effects occur rarely. • *Mazindol*: Common side effects in nervousness, irritability, insomnia, mouth, sweating and constipation. Dysrhythmias and worsening of ar may occur in patients with preexis heart disease. • *Phentermine*: Common side effect include dry mouth, diarrhea, constipation, insomnia, vivid drear nervousness, irritability, headache blurred vision. Abrupt cessation af prolonged high-dosage administra may result in fatigue. The potentia abuse should be considered. • *Benzphetamine*: Common side eff include palpitations, tachycardia, increased blood pressure, central nervous system overstimulation, a gastrointestinal disturbances. Cardiomyopathy has been reporte • *Phendimetrazine*: Common side e include palpitations, tachycardia, increased blood pressure, central nervous system overstimulation, a gastrointestinal disturbances. Abru cessation after prolonged high-dos administration may result in extren fatigue and depression. The poten abuse should be considered.
Surgery	Since surgical procedures result in some loss of absorptive function, the long-term consequences of potential nutrient deficiencies must be recognized and adequate monitoring must be performed, particularly with regard to vitamin B_{12}, folate and iron. Some patients may develop other gastrointestinal symptoms such as "dumping syndrome" or gallstones.	Complications associated with vertical ban gastroplasty: • Mortality • Wound infection • Anastomotic leaks and peritonitis • Deep venous thrombosis • Pulmonary embolism • Subphrenic abscess

	Occasionally patients may have postoperative mood changes or their presurgical depression symptoms may not be improved by the achieved weight loss. Other reported complications include incisional hernia, staple line failure, gastritis, cholecystitis, anastomotic problems, dehydration, malnutrition, and dilated pouch.	Risks associated with Roux-en-y gastri bypass: • Nutritional deficiencies - vitamin a mineral supplementation often req • Need for monthly vitamin B12 inje • Dumping syndrome. • Liver enzyme abnormalities and h dysfunction. • Postprandial hypoglycemia (rare). Similar complications are observed wit Roux-en-Y gastric bypass as with verti banded gastroplasty procedure. The ty operation does not seem to influence t complication rate appreciably.

Guideline Content Comparison

NIH and AACE/ACE present recommendations on the clinical management of overweight and obesity, based on evidence available at the time of each report. NIH provides explicit reasoning behind their judgments in evidence tables, ranking the level of evidence for each major recommendation; AACE/ACE offers literature citations to support their major recommendations. AACE/ACE discusses topics that are not covered by NIH, including the prevention of obesity, the role of physician counseling, and obesity in adolescents and children.

Areas of Agreement

Both AACE/ACE and NIH agree on the basic indications for weight reduction intervention, targeting all patients with BMI of 30 or greater and selected patients with BMI greater or equal to 25. The mainstay of treatment, recommended by both groups, is a combination of restricted caloric intake, exercise, and lifestyle/behavior modifications. Both AACE/ACE and NIH recommend incorporating pharmacotherapy into the comprehensive weight loss program for patients with BMI of 30 or greater and patients with BMI greater than or equal to 27 with comorbid disease. In addition, there is general agreement on the selection of appropriate pharmaceutical agents. Both groups advise caution in using drug therapy and recommend frequent monitoring of the effectiveness and side effects of the drug. Both groups recommend against combination anti-obesity pharmacotherapy. AACE/ACE and NIH also present similar considerations for surgical intervention, with regard to patient selection as well as preferred surgical procedures.

Areas of Differences

With regard to dietary therapy, NIH does not endorse severe caloric restriction (very low calorie diets or VLCDs); whereas, AACE/ACE countenance their use under special circumstances, reserving this option for patients who face

major health risks. AACE/ACE also permit a wider range of pharmaceutical options, including the second-line approved agents (benzphetamine and phendimetrazine) and over-the-counter drugs (phenylpropanolamine); whereas, NIH favors weight loss drugs that have received FDA approval for long-term use, following testing for at least 1 year. Similarly, AACE/ACE comment on surgical options that the NIH does not consider, such as jaw wiring and intestinal bypass.

This Synthesis was prepared by ECRI on October 8, 1999. It was reviewed by the guideline developers as of December 1999.

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